

REMARKS

Claims 1, 3, 5, 7, 9, 11, 13, 15, 16, 18-27 and 32-41 are currently pending. By this response to the final Office Action dated July 9, 2008, claims 16, 27, and 35 are amended, and new claims 37-41 are added. The amendments are supported by the specification, including the claims, as filed. No new matter has been added. Favorable reconsideration of the application in light of the foregoing amendments and the following comments is respectfully solicited.

I. Rejection Under 35 U.S.C. § 112, Second Paragraph

In section 4 of the Office Action, claim 27 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite. Amended claim 27 has removed use of the terms cited in the rejection. Accordingly, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 112.

II. Rejections Under 35 U.S.C. § 103(a)

In section 9 of the Office Action, claims 1, 3, 5, 7, 9, 11, 13, 15, and 18-26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,155,722 (Hilla) in view of U.S. Patent App. Pub. No. 2003/0126260 (Husain). In section 10 of the Office Action, claims 16 and 35 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilla in view of U.S. Patent No. 6,505,269 (Potter). In section 11 of the Office Action, claim 27 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilla in view of U.S. Patent No. 5,274,815 (Trissel). In section 12 of the Office Action, claims 32-34 and 36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hilla in view of Potter and Trissel. Applicants respectfully traverse.

A. Claims 1, 3, 5, 7, 9, 11, 13, and 18-27

Claims 1 and 18 each recite, *inter alia*,

a substituting step, which substitutes an equivalent process for a process using the resource, based upon the results of the determining step; wherein the equivalent process is for the processor, is equivalent to the process using the resource, and makes reduced use of the resource.

Pages 6-7 and 14-15 of the Office Action acknowledge that Hilla does not teach the above limitations. Instead, the Office Action asserts that Husain bridges the acknowledged gap between the claims and Hilla.

Husain, paragraph [0109] states

the computers assigned to each user may be swapped. In other words, the first computer (or another computer) may copy the information from the first computer over to the second computer, and the second computer (or another computer) may copy the information from the second computer onto the first computer.

However, this description does not disclose or suggest “substitut[ing] an equivalent process” that “is for the processor,” as recited in claims 1 and 18. Instead, Husain’s disclosed swapping requires information to be moved to a computer.

Additionally, Husain, paragraph [0110] states

a swap move may be used to equalize or adjust the use of resources in a network (e.g., to put more demanding users with faster computer blades).

This description does not disclose or suggest that Husain’s swapping is “based upon the results of [a] determining step” “which determines the status of use of the resource,” as recited in claims 1 and 18. Instead, Husain’s swapping is performed based on an entirely different objective.

Husain, paragraph [0109] states

an operation rule may indicate a need to swap the first computer with the second computer, e.g., to improve performance for a user, or to change environments (e.g., from Microsoft Windows™ to Apple MacOS™).

Thus, Husain's swapping is not "based upon the results of [a] determining step" "which determines the status of use of the resource," as recited in claims 1 and 18.

As Husain fails to disclose or suggest the above limitations, it does not bridge the acknowledged gap between claims 1 and 18 and Hilla, and thus claims 1 and 18 are not obvious in view of the cited art. Accordingly, Applicants respectfully request withdrawal of the rejections of independent claims 1 and 18, as well as dependent claims 3, 5, 7, 9, 11, 13, and 19-27, as "dependent claims are nonobvious if the independent claims from which they depend are nonobvious." *In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992); accord MPEP § 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious").

B. Claims 16 and 32-36

Claim 16 recites, *inter alia*,

the first processor can access a plurality of memory banks of a memory for the first processor by using a same address.

Page 21 of the Office Action acknowledges that Hilla does not teach "access[ing] a plurality of memory banks . . . by using a same address," as recited in claim 16. Instead, the Office Action asserts that Potter bridges this acknowledged gap between claim 16 and Hilla. Specifically, the Office Action relies on Potter's disclosure with respect to FIG. 4 that two external memory arrays 410a and 410b, each organized into a plurality of banks BANK0-3, "logically form a single address space." Office Action, page 21, lines 8-12 (citing Potter, FIG. 4; col. 7, lines 27-40).

Potter does not bridge the gap between claim 16 and Hilla. According to claim 16, the first processor must be able to "access a plurality of memory banks . . . by using a same address."

In other words, a single address must be capable of accessing a plurality of memory banks. A “single address,” as recited in claim 16, is not equivalent to a “single address space,” as disclosed by Potter. Potter’s teaching of “a single address space” does not disclose or suggest this feature, as each bank occupies a unique range of the “single address space,” such that any given address in the address space only accesses a single bank. This is clearly illustrated by Potter, FIG. 9, and the related discussion in cols. 11-12. As shown in FIG. 9, certain bits of an address (ADDRESS) select which array and which bank in the selected array is accessed. Specifically, I/F SEL [0] selects one of two arrays (*e.g.*, 410a and 410b in FIG. 4), and BANK SEL [1:0] selects one of four banks within the selected array (*e.g.*, BANK0 – BANK3 in FIG. 4). Although the four modes shown in FIG. 9 each maps varying bits in ADDRESS to I/F SEL and BANK SEL, in each mode there are always three bits in ADDRESS which must be set in order to select a memory bank. Thus, Potter does not disclose or suggest “using a same address” to “access a plurality of memory banks” – instead, different addresses are used to access the plurality of memory banks disclosed by Potter.

As Potter does not disclose or suggest the above limitations of claim 16, it does not bridge the gap between claim 16 and Hilla, and thus the cited art does not make independent claim 16 obvious. For the same reasons, independent claim 35, which recites “a plurality of memory banks of a memory for the first processor that are accessible by the first processor by using a same address,” is also not obvious in view of the cited art. Accordingly, Applicants respectfully request withdrawal of the rejections of independent claims 16 and 35, as well as dependent claims 32-34 and 36.

III. New Claims 37-41

For much the same reasons discussed above with respect to claim 1, new independent claim 37 is not obvious in view of the cited art. However, claim 37 is nonobvious for reasons in addition to those discussed with respect to claim 1. Claim 37 recites, *inter alia*,

a substituter that substitutes an equivalent process which is equivalent to the process identified by the process identifier and does not use the resource.

In view of the reading of Husain upon the limitations of claim 1 proposed by the Office Action, Husain does not make obvious the recited “substituter.” On page 7 of the Office Action, second computer blade 403 is equated with the recited “resource,” a user originally on blade 403 is equated with the recited “process,” and a user originally on blade 401 is equated with the recited “equivalent process.” However, after the two users are swapped, Husain does not disclose or suggest that the user originally on blade 401 “does not use the resource” (*i.e.*, second computer blade 403, according to the Office Action).

Also, as recited in claims 37-41, a compiler includes the claimed limitations. In embodiments of claims 37-41, a compiler can identify a process in a program using a resource and substitute an equivalent process that does not use the resource, depending on the status of the use of the resource. This eliminates the need for hardware to determine a status of use of a resource and switch processes depending on its use. Without the use of hardware, the above embodiments can prevent resource contention and corresponding decrease in processing speed by by executing a compiled program generated by the recited compiler.

Thus, in addition to the reasons discussed with respect to claim 1, claim 37 is further distinguished over, and nonobvious in view of, the cited art. Accordingly, Applicants respectfully request allowance of new claims 37-41.

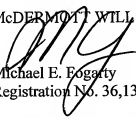
IV. Conclusion

Accordingly, it is urged that the application, as now amended, is in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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